



## Composting

### WHAT IS COMPOSTING?

Composting is the controlled decay of plant and animal matter to produce compost—a dark, rich soil-like material. Compost can be added to soil to improve its structure and nutrient content.



In nature, bacteria, fungi, worms, and other soil organisms help to break down dead plants and animals, as well as animal wastes. The decomposed organic material becomes part of the soil. This natural decay process usually takes place very slowly.

Leaves that fall to the forest floor slowly decay to form part of the organic matter in soil.

Composters create ideal growing conditions for compost organisms. This speeds up the natural decay process.

### WHAT COMPOST ORGANISMS NEED

#### 1. A balanced diet of compost materials

"Browns" are compost materials that are brown and dry.



"Browns" are high in carbon, which is energy food for microbes.

"Greens" are compost materials that are green and moist.



"Greens" are high in nitrogen, which microbes need to make proteins.

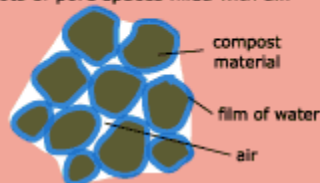


If I add about 3 parts browns to 1 part greens, then the compost organisms will have a balanced diet.

#### 2. Just the right amount of air and water

If there's the right amount of oxygen and moisture, microbes can rapidly grow and multiply. Too much—or too little—water, and microbes will die.

Compost materials should have a thin film of water around them, and lots of pore spaces filled with air.



I'm mixing my compost pile so that all the compost organisms get enough air and water.



### 3. The right temperature

Organic materials will eventually decay, even in a cold compost pile. But the decay process is speeded up in a hot compost pile. When bacteria and fungi grow rapidly, they burn a lot of food, and give off a lot of heat. If the compost pile is big enough, the heat will build up inside the pile. Bacteria that grow well at high temperatures take over and speed up the decay process.

A compost pile that is about one cubic meter (1m x 1m x 1m) in size is big enough to hold in heat and warm up.



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